Detailed Estimates

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Detailed and Abstract Estimate

me of the Work : **Widening & Comprehensive Development of Singapura Garden Road from Abbigere Road (Precision Components Factory) to Shrinikethan Layout (BDA Layout)**

1 The rates adopted in this estimate are as per PW,P&IWTD, schedule of rates of Bengaluru circle for 2018-19 continued for 2020-21, & PW,P&IWD, schedule of rates for Electrical works for 2019-2020, also BWS&SB schedule of rates for 2017-18

2 The Area weightage pertaining to the BBMP limit of 6% for road works and 8% for Bridge items is adopted as per schedule of rates of Bengaluru circle of PW,P&IWTD, and No area weightage is considered rates selected from other SR

3 For New items units rates are arrived by deraiving from suitable SR items by adopting/deducting, material rates as given in the SR. Contractor profit and overhead charges of 10% each is considered while affecting either deduction / additon from main finished SR Items.

4 KTPP 1999 followed while Tendering and procurement of materials

Bill of Quantity - 1 Site clearance and Dismantling

Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Meaurements					Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H	Quantity		
1	2	3	4	5			7	9	10
1.01	KSRRB M200-32. Removal of Telephone / Electric poles including excavation and dismantling of foundation concrete and lines under the supervision of concerned department, disposal with all lifts and stacking the serviceable and unserviceable material separatelycomplete as per specifications. MORTH Specification No. 202								
	PWD SR 2018-19 Pg No 141 Item NO 18.57								
	Gangamma Gudi police station road from DJR Appartment for a length of 310m	Nos							
	Lamp Pole-1+Electric pole-17+Transformers-1		19				19		
	Singapur Garden road								
	Lamp Pole-6+Electric pole-21+Transformers-3, telephone pole-3		33				33		
	Total						**52**	**230.02**	**11961.04**
1.02	"KSRRB M200-29. Dismantling of barbed wire fencing / wire mesh fencing including posts, foundation concrete, back filling of pit by manual means including disposal of dismantled material with all lifts and stacking serviceable material and unserviceable material separately complete as per specifications.MORTH Specification No. 202								
	PWD SR 2018-19 Pg No 141 Item NO 18.54								
	Chain link fencing IN Gangamma Gudi Police station road from Ch0-380 M for school -90m + for Abbigere park - 170m	M	1	260			260		
	Total						260	69.96	18189.60

ಲೆಕ್ಕ ಪರಿಶೋಧಕರ ಸಂ : EE/RR/Kalli/Adm.AS/202/2021-22
ಅಂದಾಜು ಮೊ : 550 lakhs ಗಳಿಗೆ
(ರೂ : five hundred and fifty lakhs only/— ಮಾತ್ರ)
ಆದೇಶಾನುಸಾರ

ಕಾರ್ಯ ಪಾಲಕ ಅಭಿಯಂತರರು
ಬೆಂಗಳೂರು.

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Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Meaurements				Quantity	Rate (In Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H			
1	2	3	4	5	6	7	8	9	10
1.03	KSRRB M20Q-17.1.Dismantling of existing Steel work in all types of Sections upto a Height of 5 m above plinth level excluding Cutting of Rivet, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts - A.Including dismembering," complete as per specifications.								
	PWD SR 2018-19 Pg No 140 Item NO 18.33								
	Bus shelter in Gangamma gudi road	Tonne	1	1			1		
	Total						1	2006.58	2006.58

N.D Venkatesh

ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ರಸ್ತೆ ಮೂಲಭೂತ ಸೌಕರ್ಯಗಳು, ದಾಸರಹಳ್ಳಿ ವಿಭಾಗ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಬೆಂಗಳೂರು-02.

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Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Meaurements					Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H	Quantity		
1	2	3	4	5	6	7	8	9	10
1.04	KSRRB 200-1. Cutting of trees girth from 300mm to 600mm including cutting of trunks, branches and removal of stumps roots stacking of serviceable materials earth filling in the depressions / pit, labour charges complete as per specifications, MORTH specification clause 201/ Chapter 2								
	PWD SR 2018-19 Pg No 138 Item NO 18.1								
	along Abbigere Main Road wimmac junction to Gangamma Gudi police station and Singapur Garden Road								
	- do- 300mm to 600mm	Nos	5				5	316.94	1584.7
1.04a	PWD SR 2018-19 Pg No 138 Item NO 18.2								
	- do- KSRRB M200-6.2 : - do - 600mm to 900mm	Nos	25				25	977.32	24433
1.04b	PWD SR 2018-19 Pg No 138 Item NO 18.3								
	KSRRB M200-6.3: - do - 900mm to 1800mm	Nos	10				10	2377.58	23775.8
1.04c	PWD SR 2018-19 Pg No 138 Item NO 18.4								
	KSRRB M200-6.4: - do - 1800mm to 2700mm	Nos	6				6	3698.34	.22190.04
1.05	KSRRB M200-14.1. Dismantling of existing structures like culverts,bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications, B. In cement mortar. MORTH Specification No. 202 KSRRB M200-14.2. -d o - Dismantling brick/Tile work B. In cement mortar including loading and unloading and disposal to a lead of 20km as per direction of Engineer In Charge								
	(PWD SR 2018-19 Pg No 139 Item NO 18.23)								
	Manholes dismentaling								
	Along Abbigere Main Road wimmac junction to Gangamma Gudi police station-3nos+ and Singapur Garden Road-20nOS	Cum							
	Manhole is Brick massonry of dia 1.2m as donut. Internal radus r=1m Outer radius R =1.2M equal to brick thickness. Donut surface area = (R^2-r^2)pai^2=(1.2^2-1^2)3.14^2=4.338		23	4.338		1.5	149.661		
	Removable of Foot path interlocking tiles with Dry sand LHS Existing RCC Drain from 0 to 380 LHS & RHS		1	590	3	0.012	21.24		
	Total						170.90	487.6	83331.3276

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Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Meaurements					Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H	Quantity		
1	2	3	4	5	6	7	8	9	10
1.06	KSRRB M200-15.1. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications,iii) Dismantling Stone Masonry. MORTH Specification No. 202 KSRRB M 200-15.2. -d o - B. Rubble stone masonry in cement mortar.								
	PWD SR 2018-19 Pg No 140 Item NO 18.27								
	Culvert Dismantaling								
	SSM for foundation to Abutment for culvert at Singapur Garden road	Cum	2	36	1.2	1.3	112.32		
	stone Pier at centar SSM		1	36	0.65	1.3	30.42		
	Parapet over existing culvert		2	8	0.65	1.08	11.232		
	Compound wall from 0 to380		1	100	0.3	2.0	60.00		
	SSM for foundation to chainlink fencing		1	260	0.3	1.5	117.00		
	Total						330.972	372.06	123141.4423

N D Varpetes

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ರಸ್ತೆ ಮೂಲಭೂತ ಸೌಕರ್ಯಗಳು, ದಾಸರಹಳ್ಳಿ ವಿಭಾಗ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಬೆಂಗಳೂರು-02.

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Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Meaurements					Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H	Quantity		
1	2	3	4	5	6	7	8	9	10
1.07	Disposable of dismantaled unservicable Rubble stone masonry including with all loading and unloading and disposed to a lead up to 20km as per the direction of Engineer incharge								
	PWD SR 2018-19 Pg No 136 Item NO 17.1/17.5								
	Quantity as estimated for dismantaling of Rubble stone massonry is 330.972 cum	Cum							
	Quantity as estimated for for reuse is about 40% of dismantaled masonry of 330.72cum = 132.3 cum					50			
	Quantity as estimated as unservicable and disposable is about 60% of dismantaled masonry of 330.972 cum of item above 1.06 = 198.432 cum						281		
	Total						**281**	**115.54**	**32504.42915**
1.08	KSRRB M200-13.1. Dismantling of existing Structures like Culverts, Bridges, Retaining Walls and other Structures comprising of Masonry, Cement Concrete, Wood Work, Steel Work, including T & P and Scaffolding wherever necessary, sorting the dismantled Material, disposal of unserviceble Material, disposal of unserviceble Material and stacking the serviceble Material and serviceble Material with all lifts complete as per Specifications. By mechanical means, A cement concrete grade M-15 & M-20 including loading and unloading and disposal to a lead of 20km As per the direction of the engineer Incharge								
	PWD SR 2018-19 Pg No 139 Item NO 18.20								
	Dismantling of Existing Drain in Abbigere Park on LHS-280m+RHS310m total=590m	Cum							
	RCC Wall		2	590	0.15	1	177		
	Raft		1	590	1	0.15	89		
	Culvert slab at Singapur Garden road		1	40	6	0.1	24		
	Total						**290**	**528.94**	**153128.13**
1.09	KSRRB M200-26. Dismantling Kerb stone by manual means and disposal of dismantled materials with all lifts and complete as per specifications.MORTH Specification No. 202								
	PWD SR 2018-19 Pg No 141 Item NO 18.49								
	Dismantling of kerb existing from Ch 0 to380 in Abbigere main road on LHS& RHS	m	1	590			**590**	**12.72**	**7504.8**

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Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Meaurements				Quantity	Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H			
1	2	3	4	5	6	7	8	9	10
1.10	KSRRB 200-8. Clearing and grubbing road land including uprooting rank vegetation, rass, brush, shrubs, saplings and trees of girth upto 300mm,by manual means, in area of light jungle, removal of stumps, disposal of unserviceable materials, stacking of serviceable materials labour charges complete as per specifications. MORTH / Chapter 2 (Throny Jungle)								
	(PWD SR 2018-19 Pg No 138 Item NO 18.11)								
	from ch 0 to 310 Abbigere road & 0 to 655singapur garden road	**Sqm**	2	965	5		**9650**	**10.60**	**102290**
1.12	KSRRB 300-50. Scarifying bituminous course 50mm to 75mm thick along with premix carpet / surface dressing by mechanical means attached with scarifier without disturbing the base and stacking the debris including cost of all labour charges, HOM complete as per specifications. MORTH I Chapter 3								
	(PWD SR 2018-19 Pg No 146 Item NO 19.56)								
	Scarifying the existing Bituminus surface for overlay with new bituminous surface	**Sqm**							
	Vide Typ CS-01 18M wide Road- ch 70 m starts near Divya JSR Limited Appartment to Gangamma Gudi Police station for a length of310 m in Abbigere roab way to Singapura Garden road		1	310	5.5		1705		
	Total					Sqmt	1705	41.34	70484.7
								Total for Bill of Quantity - 1	676525.5891

ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
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ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಬೆಂಗಳೂರು-02.

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Detailed and Abstract Estimate

Name of the Work : Widening & Comprehensive Development of Singapura Garden Road from Abbigere Road (Precision Components Factory) to Shrinikethan Layout (BDA Layout)

1 The rates adopted in this estimate are as per PW,P&IWTD, schedule of rates of Bengaluru circle for 2018-19 continued for 2020-21, & PW,P&IWD, schedule of rates for Electrical works for 2019-2020, also BWS&SB schedule of rates for 2017-18

2 The Area weightage pertaining to the BBMP limit of 6% for road works and 8% for Bridge items is adopted as per schedule of rates of Bengaluru circle of PW,P&IWTD, and No area weightage is considered rates selected from other SR

3 For New items units rates are arrived by deraiving from suitable SR items by adopting/deducting, material rates as given in the SR. Contractor profit and overhead charges of 10% each is considered while affecting either deduction / additon from main finished SR Items.

4 KTPP-1999 followed while Tendering and procurement of materials

Bill of Quantity - 2 Earth work (excavation, embankment,sub grade)

Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Meaurements					Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H	Quantity		
1	2	3	4	5	6	7	8	9	10
2.01	KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 21.00 km and complete as per specifications. MORTH Specification No.301								
	PWD SR 2018-19 Pg No 143 Item NO 19.14								
	Earth work for Road way excavation	Cum							
	Vide Typ CS-for 18M wide Road- starts from ch 920m near Divya JSR Limited Appartment to Gangamma Gudi Police station ch:1230m for a length of 310 m in Abbigere main road way to Singapura Garden road		1	310	12.6	0.88	3437.28		
	Deduct for existing carriage way retained in 18m c/s		-1	310	6.5	0.88	-1773.2		
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout		1	655	8	0.78	4087.2		
	Cross roads		3	5	5	0.78	58.5		
	Earthwork at Junctions at Wimmac & at Singapur garden road		2	50	15	0.78	1170		
	Earth work for Drain								
	Vide Typ CS-for 18M wide Road- starts from ch 920m near Divya JSR Limited Appartment to Gangamma Gudi Police station ch:1230m for a length of 310 m in Abbigere main road way to		2	310	1.3	1.25	1007.5		
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout		1	655	2	1.25	1637.5		
	Deduct for Culvert portion		1	-40	3	1	-120		
	Earth work for construction of Solid cemnt concrete Block at the edge of PROW to restrict the encroachment								
	Vide Typ CS-for 18M wide Road- starts from ch 920m near Divya JSR Limited Appartment to Gangamma Gudi Police station ch:1230m for a length of 310 m in Abbigere main road way to		2	155	1.4	1.5	651		
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout		1	328	2	1.5	982.5		
	Add for superelevation at junctions		1	20	10	0.5	100		
	Earth work for SSM Foundation to Chainlink fencing								

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Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Meaurements					Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H	Quantity		
1	2	3	4	5	6	7	8	9	10
	for Stone Masonary foundation wall for Chainlink fencing for School in Abbigere main road at ch 300m from wimmac junction		1	300	0.4	1.5	180		
	Earth work for Manholes &Laying NP3 Pipes for singapur Garden road of 655m length only, for Gangamma gudi road 310m incluuded in wood apartment road project								

N.D Venkatesh

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Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Measurements				Quantity	Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H			
1	2	3	4	5	6	7	8	9	10
2.01	Manholes excavations (for depth of manhole from 1m to 2m)Avg height 1.2m	Cum	27	1.5	1.5	1.2	72.9		
	Laying of NP3 Pipes Manhole to Manholes Avg height 1.5m		1	655	0.5	1.2	393		
	Earth work for providing Utility duct from drain to drain @ 60m c/c below subgrade								
	Vide Typ CS-for 18M wide Road- starts from ch 920m near Divya JSR Limited Appartment to Gangamma Gudi Police station ch:1230m for a length of 310 m in Abbigere main road way to Singapura Garden road		5	18	0.5	0.6	27.9		
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout		11	12	0.5	0.6	39.3		
	Total						**11951.4**		
	Deduct for using approved earth deposited at site from roadway cutting using for construction of embankment as shown in item below 2.03						**-1129.7**		
	Deduct for using approved earth deposited at site from roadway cutting using for construction of median as shown in item below 2.03						**0**		
	Grand total						**10821.7**	**43.46**	**470312.3858**
2.02	Earth work in excavation for foundation of structures like culverts , retaining walls etc., as per drawing and technical specification, including setting out, construction of shoring and bracing, dressing of sides and bottom, back filling with approved material, disposal of balance earth as per specifications, including cost of labour, HOM etc, complete. in all kinds of soil by Mechanical means								
	PWD SR 2018-19 Pg No 256 Item NO34.15.2								
	Earth work for Culvert in Singapur Garden road	**Cum**							
	Foundation as per drawing		2	40	3.3	2	**528**	**47.70**	**25185.6**
2.03	Disposable of excavated un servicable road way earth with all lead of 19 km as per the direction of Engineer in charge								
	PWD SR 2018-19 Pg No 136 Item NO 17.4 Derived from SR								
	Excavated earth from item no 2.01 =	Cum					**10821.7**	**48.64**	**526368.9472**
2.04	KSRRB M300-54.Construction of embankment with approved material deposited at site from roadway cutting and excavation from drain and foundation of other structures graded and compacted to meet requirement of Table 300-2 complete asper specifications: Which includes, watering charges & compaction by vibratory roller) MORTH Specification No. 305								
	PWD SR 2018-19 Pg No 147 Item NO 19.61								
	Vide Typ CS-for 18M wide Road- starts from ch 920m near Divya JSR Limited Appartment to Gangamma Gudi Police station ch:1230m for a length of 310 m in Abbigere main road way to Singapura Garden road	**Cum**	1	310	12.6	0.15	585.9		
	Deduct for existing carriage way retained in 18m c/s		-1	310	6.5	0.15	-302.25		
	Formation of embankment in Singapur Gardan Road from CH 0 TO 655 lowlaying in widening portion		1	655	8	0.15	786		
	Add for superelevation at junctions		1	20	10	0.3	60		
	Total						**1129.65**	**100.70**	**113755.755**

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			No	L	B	D/H			
1	2	3	4	5	6	7	8	9	10
2.05	KSRRB M300-53. Construction of sub-grade and earthen shoulders with approved material Gravel/Murrum with all lifts & leads, transporting to site,spreading, grading to of watering charges & compaction by vibratory roller to 97% of modified Table No. 300-2 complete as per specifications, including cost of earth,required slope and compacted to meet requirement watering charges & compaction by vibratory roller to 97% of modified proctors density) MORTH Specification No. 305								
	PWD SR 2018-19 Pg No 147 Item NO 19.60								
	Subgrade for Road way	Cum							
	Vide Typ CS-01 18M wide Road- ch 70 m starts near Divya JSR Limited Appartment to Gangamma Gudi Police station for a length of310 m in Abbigere roab way to Singapura Garden road		1	310	12.6	0.2	781.2		
	Deduct for existing carriage way retained in 18m c/s		-1	310	6.5	0.2	-403		
	Vide Typ CS-02 12M wide Road- form ch 0-630		1	655	8	0.2	1048		
	Cross roads		3	5	5	0.3	22.5		
	Earthwork at Junctions Wimmac+Singapur garden road		2	50	15	0.3	450		
	Add for superelevation at junctions		1	20	10	0.3	60		
	Deduct for Culvert portion		1	-40	3	0.3	-36		
	Total						1922.7	344.50	662370.15
2.06	KSRRB M400-18. Construction of Median and island above road level with approved material deposited at site from roadway cutting and excavation for drain and foundation of other structures, spread, graded and compacted as per Clause 400.7 complete as per specifications. MORTH Specification No. 407								
	(PWD SR 2018-19 Pg No 155 Item NO 20.19)	Cum							
	for median filling in 18m wide road								
	Typ CS-01 18M wideRoad- form Ch 070 to 380m upto Gangamma Gudi police station		0	310	0.6	0.3	0		
	Total						0	2.12	0
								Total for Bill of Quantity - 2	1797992.838

N.D Venkatesh

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4 KTPP 1999 followed while Tendering and procurement of materials

Bill of Quantity - 3 Cement Concrete and Steel work

(PCC,RCC,Hysd,Masonry,plastering,painting,steel work,footpath,kerb,painting,etc.,)

Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Meaurements					Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H	Quantity		
1	2	3	4	5	6	7	8	9	10
	Cement Concrete Works								
3.01	Providing and laying in possition plain cement concrete of mix 1:2:4 for sub-structure works like Culverts,retaining walls etc.,with cement@ 240 kgs, 40 mm & down size graded granite metal coarse aggreate @ 0.84 cum and fin aggregates @ 0.46cum machine mixed, with necessary scoffolding form work etc., including cost of labour, HOM curing etc., complete								
	PWD SR 2018-19 Pg No 256 Item NO 34.16								
	Foundation-PCC For Drain work	Cum							
	Vide Typ CS-for 18M wide Road- starts from ch 920m near Divya JSR Limited Appartment to Gangamma Gudi Police station ch:1230m for a length of 310 m in Abbigere main road way to Singapura Garden road		2	310	1.5	0.1	93		
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout		1	655	1.5	0.1	98.25		
	Cross roads		3	5	1.5	0.1	2.25		
	at Junctions Wimmac+Singapur garden road		2	20	1.5	0.1	6		
	PCC For Kerb Abbigere road 310m length for 4 sides		4	310	0.17	0.1	20.46		
	for singapur garden road +cross roads		4	705	0.17	0.1	46.53		
	PCC for Solid cemnt concrete Block at the edge of PROW to restrict the encroachment								
	Vide Typ CS-for 18M wide Road- starts from ch 920m near Divya JSR Limited Appartment to Gangamma Gudi Police station ch:1230m for a length of 310 m in Abbigere main road way to Singapura Garden road		2	310	0.3	0.1	18.6		
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout		1	655	0.3	0.1	19.65		
	PCC for SSM Masonry								
	for Stone Masonary foundation wall for Chainlink fencing for School		1	300	0.4	0.1	12		
	Coping concrete over SSM Masonry for Chain link fencing fixing for School		1	300	0.4	0.1	12		
	PCC work for Culvert in Singapur Garden road		2	40	4.2	0.2	67		
	Floor concrete between abutments to protect foundation		1	40	6	0.1	24		

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Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Meaurements					Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H	Quantity		
1	2	3	4	5	6	7	8	9	10
	Total						**396**	**5023.34**	**1988941.24**
3.02	Providing and laying in position plain/Reinforced cement cement concrete M20 for sub-structure/Superstructure works, with cement @ 320 kgs, 20 mm & down size graded granite metal coarse aggregate @ 0.69 cum and fine aggregates @ 0.46 cum machine mixed with super plasticisers @ 3lts confirming to IS 9103-2008,concrete laid in layers, well compacted and providing weep holes wherever necessary with necessary scaffolding,form work etc., including cost of labour, HOM curing etc., complete.								
	PWD SR 2018-19 Pg No 222 Item NO 27.24								
	for Sub structure- Culverts at Singapura Garden Road	**Cum**							
	PCC & Mass Concrete For foundation to Culvert as per Drawing								
	Mass Concrete for Abutment								
	step-1		2	40	3.8	0.2	61		
	step-2		2	40	3.4	0.2	54		
	step-3		2	40	3	0.4	96		
	Haunch Concrete		2	40	2.15	0.4	69		
			2	40	0.17		14		
	Abutment								
	Vertical Wall (abutment wall) upto dirt wall		2	40	0.63	3.15	158		
			2	40	1	2	160		
	Total						**611**	**5404.94**	**3302958.83**

M.D Varghese

ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ರಸ್ತೆ ಮೂಲಭೂತ ಸೌಕರ್ಯಗಳು, ದಾಸರಹಳ್ಳಿ ವಿಭಾಗ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಬೆಂಗಳೂರು-02.

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Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Meaurements					Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H	Quantity		
1	2	3	4	5	6	7	8	9	10
3.03	KSRRB M2200-5.9. Providing and laying Design mix M20 with OPC @ 320kgs, with 20mm and down size graded granite metal coarse aggregates @0.69cum and fine aggregates @ 0.46cum, with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008 including cost of materials, labour, HOM curing, form works, scaffolding and centering complete as per specifications. - i) Upto 5 m height								
	PWD SR 2018-19 Pg No 226 Item NO 28.7.2								
	RCC for Drain wall and Raft	**Cum**							
	for Raft								
	Vide Typ CS-for 18M wide Road- starts from ch 920m near Divya JSR Limited Appartment to Gangamma Gudi Police station ch:1230m for a length of 310 m in Abbigere main road way to Singapura Garden road		2	310	1.3	0.15	120.9		
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout		1	655	1.3	0.15	127.725		
	Cross roads		3	5	1.3	0.15	2.925		
	Earthwork at Junctions Wimmac+Singapur garden road		2	20	1.3	0.15	7.8		
	for Drain wall								
	Vide Typ CS-for 18M wide Road- starts from ch 920m near Divya JSR Limited Appartment to Gangamma Gudi Police station ch:1230m for a length of 310 m in Abbigere main road way to Singapura Garden road		4	310	0.15	1.1	204.6		
	- do- aditional quantities at 3 cross roads of length 10m , drain section of wall change 150mm to 200mm		2	30	0.05	1.1	3.3		
	Add for slab over drain at cross roads to cross the heavy vehicles		1	30	1.4	0.2	8.4		
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout		2	655	0.15	1.1	216.15		
	- do- aditional quantities at 3 cross roads of length 10m , drain section of wall change 150mm to 200mm		2	40	0.05	1.1	4.4		
	Add for slab over drain at cross roads to cross the heavy vehicles		1	40	1.4	0.2	11.2		
	Cross roads		4	5	0.15	1.1	3.3		
	at Junctions Wimmac+Singapur garden road		2	20	0.15	1.1	6.6		
	RCC for Street light poles foundation for Singapur Garden road								
	RCC for 8 mtr pole foundation at the locations at 30m/c/c								
	Vide Typ CS for12M wide Road for Singapura		0	0.75	0.75	1.2	0		
			included in						
	Total RCC for Drain -A						**717.3**	A	
	for Culverts at Singapura Garden Road RCC Solid Slab forCulvert								
	Bed Block for Slab		2	40	1.2	0.5	48		
	RCC for Culvert Deck slab-		1	40	6	0.55	**132**		
	For approach slab		2	40	2	0.3	**48**		
	RCC for Parapet		2	8	0.5	0.6	**4.8**		
	Total for Culvert -B						**233**	B	
	Grand Total of Concrete = A+B						**950.1**	**5610.58**	**5330612.06**

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Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Measurements					Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H	Quantity		
1	2	3	4	5	6	7	8	9	10
3.04	KSRRB M2200-6. Providing T M.T steel reinforcement for R C C work including straightening, cutting, bending, hooking placing in position tapping and /or welding wherever required , tying with binding wire and anchoring to the adjoining members wherever necessary complete as design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specification. MORTH Specification No. 1600 & 2200. TMT Bars Fe 500								
	PWD SR 2018-19 Pg No 229 Item NO 27.28.2								
	Steel reinforcement for RCC wall @ 55 kg/cum of Conocrete Quantity of Concrete is M20 for Drain as above item **Total A** as above = 669.6cum@ 55 kg/cum	**Tonne**	1	**39**			39		
	Steel reinforcement for RCC @ 100 kg/cum of Conocrete Quantity of Concrete is M20 for Culvert slab as above item **Total B** as above = 190cum@ 100 kg/cum		1	**23**			23		
	Total						**63**	**65046.9**	**4080489.61**
3.05	KSRRB M2200-8. Providing weep holes in Brick masonry wrapping / Plain /Reinforced concrete abutment, wing wall / return wall with 100 mm dia AC pipe wrapping with Geotextile to prevent the earth, extending through the full width of the structure with slope of 1V :20H towards drawing force. Complete as per drawing and Technical Specifications including cost of materials, labour, HOM complete as per Specifications. MORTH Specification No.2706 & 2200								
	PWD SR 2018-19 Pg No 229 Item NO 28.10								
	Weep poles of 100mm dia AC Pipe for culvert	**Nos/Mtr**	60				60		
	Total						60	198.4108	11904.65
3.06	KSRB M2600-3, (ii) providing and fixing 250mm wide,20mm thick compressable fibre board in expansion joint complete as per drawing and Technical Specification including cost of materials and labour,HOM complete as per specifications, MORTH Specification No 2605								
	PWD SR 2018-19 Pg No 248 Item NO 32.13								
	Bituminous pad between dirt wall and slab	**Sqm**	2	**40**		1	80		
	Bituminous Pad along the Abutment at every		2	**3**		2.5	15		
	Total						95	126.14	11983.30
3.07	KSRRB M2200-9. Providing and laying of Filter media with granular materials /stone crushed aggregates satisfying the requirements laid down in clause 2504.2.2. of MORTH specifications to a thickness of not less than 600 mm with smaller size towards the soil and bigger size towards the wall and provided over the entire surface behind abutment, wing wall and return wall to the full height compacted to a firm condition complete as per drawing and Technical Specification including cost of materials, labour, HOM complete as per specifications. MORTH Specification No. 2504.2.2								
	PWD SR 2018-19 Pg No 229 Item NO 28.13								
	Behind abutment	**Cum**	2	**40**	0.3	3	72	2258.28	162596.16

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Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Meaurements					Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H	Quantity		
1	2	3	4	5	6	7	8	9	10
3.08	Providing and laying 100mm thick pre-cast cover slabs over drains of width not exceeding 800 mm using M20 concrete reinforced with steel @ 6.00 kg/Sqm, slabs jointed in CM 1:3 proportion and nicely finished including providing holes in the Cover slabs wherever necessary for easy drainage of surface water including of labour, materials, HOM, curing, lead and lift charges etc, Complete as per MORTH specifications No. 1500,1700.								
	PWD SR 2018-19 Pg No 272 Item NO 37.66								
	Pre-cast cover slab for RCC Drain	m							
	Vide Typ CS-for 18M wide Road- starts from ch 920m near Divya JSR Limited Appartment to Gangamma Gudi Police station ch:1230m for a length of 310 m in Abbigere main road way to Singapura Garden road		776	1.2			931.2		
	Deduct for reusing existing drain cover as in Item 3.10		-368	1.2			-441.6		
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout		819	1.2			982.8		
	Cross roads		10	1.2			12		
	Earthwork at Junctions Wimmac+Singapur garden road		25	1.2			30		
	Total						1514.4	1145.86	1735290.38

N.D Venkatesh

ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ರಸ್ತೆ ಮೂಲಭೂತ ಸೌಕರ್ಯಗಳು, ದಾಸರಹಳ್ಳಿ ವಿಭಾಗ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಬೆಂಗಳೂರು-02.

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Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Measurements				Quantity	Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H			
1	2	3	4	5	6	7	8	9	10
3.09	Removing & Refixing stone slabs of drains and pointing in C.M (1:3) in all respects as directed by the Engineer In charge PWD SR 2018-19 Pg No 27 Item NO 5.33								
	Re fixing of length of Drain with avilable drain cover Typ CS -03 18M LHS & RHS	Sqm		148	1.2		177	111.30	19700.1
							Total for Bill of Quantity - 3		16644476.3

ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ರಸ್ತೆ ಮೂಲಭೂತ ಸೌಕರ್ಯಗಳು, ದಾಸರಹಳ್ಳಿ ವಿಭಾಗ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಬೆಂಗಳೂರು-02

Detailed and Abstract Estimate

Name of the Work : Widening & Comprehensive Development of Singapura Garden Road from Abbigere Road (Precision Components Factory) to Shrinikethan Layout (BDA Layout)

1 The rates adopted in this estimate are as per PW,P&IWTD, schedule of rates of Bengaluru circle for 2018-19 continued for 2020-21, & PW,P&IWD, schedule of rates for Electrical works for 2019-2020, also BWS&SB schedule of rates for 2017-18

2 The Area weightage pertaining to the BBMP limit of 6% for road works and 8% for Bridge items is adopted as per schedule of rates of Bengaluru circle of PW,P&IWTD, and No area weightage is considered rates selected from other SR

3 For New items units rates are arrived by deraiving from suitable SR items by adopting/deducting, material rates as given in the SR. Contractor profit and overhead charges of 10% each is considered while affecting either deduction / additon from main finished SR Items.

4 KTPP 1999 followed while Tendering and procurement of materials

Bill of Quantity - 4 Sub Base work

(GSB,WMM,)

Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Meaurements					Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H	Quantity		
1	2	3	4	5	6	7	8	9	10
4.01	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications. Clause 401 of MORTH V Revision.								
	PWD SR 2018-19 Pg No 153 Item NO 20.5								
	GSB laying on sub grade	Cum							
	Vide Typ CS-for 18M wide Road- starts from ch 920m near Divya JSR Limited Appartment to Gangamma Gudi Police station ch:1230m for a length of 310 m in Abbigere main road way to Singapura Garden road		1	310	12.6	0.2	781.2		
	Deduct for existing carriage way retained in 18m c/s		-1	310	6.5	0.2	-403		
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout		1	655	8	0.15	786		
	Deduct for culvert portion		1	-40	3	0.15	-18		
	cross road		3	5	5	0.15	11.25		
	at junctions		2	50	15	0.15	225		
	Total						**1382.5**	**1994.92**	**2757877.2**

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Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Measurements				Quantity	Rate (in Rs)	Amount (in Rs) (Col 8x9)
			No	L	B	D/H			
1	2	3	4	5	6	7	8	9	10
4.02	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406								
	PWD SR 2018-19 Pg No 155 Item NO 20.18								
	WMM laying on GSB	Cum							
	Vide Typ CS-for 18M wide Road- starts from ch 920m near Divya JSR Limited Appartment to Gangamma Gudi Police station ch:1230m for a length of 310 m in Abbigere main road way to Singapura Garden road		1	310	12.6	0.25	976.5		
	Deduct for existing carriage way retained in 18m c/s		-1	310	6.5	0.25	-503.8		
	add for correction layer after scarifying Bituminous layer for existing carriage way		1	310	6.5	0.1	201.5		
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout		1	655	8	0.25	1310		
	Deduct for culvert portion		1	-40	3	0.25	-30		
	cross road		3	6	6	0.25	27		
	at junctions		2	25	25	0.25	312.5		
	Total						2293.8	2001.28	4590436
							Total for Bill of Quantity - 4		7348313.2

M.D Varghese

ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ರಸ್ತೆ ಮೂಲಭೂತ ಸೌಕರ್ಯಗಳು, ದಾಸರಹಳ್ಳಿ ವಿ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಬೆಂಗಳೂರು-02.

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Detailed and Abstract Estimate

Name of the Work : Widening & Comprehensive Development of Singapura Garden Road from Abbigere Road (Precision Components Factory) to Shrinikethan Layout (BDA Layout)

1 The rates adopted in this estimate are as per PW,P&IWTD, schedule of rates of Bengaluru circle for 2018-19 continued for 2020-21, & PW,P&IWD, schedule of rates for Electrical works for 2019-2020, also BWS&SB schedule of rates for 2017-18

2 The Area weightage pertaining to the BBMP limit of 6% for road works and 8% for Bridge items is adopted as per schedule of rates of Bengaluru circle of PW,P&IWTD, and No area weightage is considered rates selected from other SR

3 For New items units rates are arrived by deraiving from suitable SR items by adopting/deducting, material rates as given in the SR. Contractor profit and overhead charges of 10% each is considered while affecting either deduction / additon from main finished SR Items.

4 KTPP 1999 followed while Tendering and procurement of materials

Bill of Quantity - 5 Masonry and Finishing work (Compound wall,footpath,Cross duct,Manholes,NP3 Pipes,Fencing,Kerb etc.,)

Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Meaurements					Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H	Quantity		
1	2	3	4	5	6	7	8	9	10
I	**Masonry Work**								
5.01	KSRB 5.2 : Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar, stone hammered dressed in courses not less than 20 cms high, bond stones at 2m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13 KSRB 5.2-3 : - do - cement mortar 1:6 KBS 5.1.13								
	PWD SR 2018-19 Pg No 255 Item NO 34.8.2								
	SSM for Foundation to Chainlink fencing for Govt School in Abbigere Main road	Cum							
	Stone Masonary foundation wall Ist course over PCC for Chainlink fencing for Govt School		1	300	0.4	0.6	72		
	Stone Masonary foundation wall IInd course over PCC for Chainlink fencing		1	300	0.2	0.6	36		
	Deduct for construction of foundation with avilable size stone from dismantaled items						-50		
	Total						**58.35**	**4871.76**	**284287.66**
5.02	Providing and constructing **with avilable granite** / trap / basalt size stone masonry in foundation with cement mortar & stone hammerd dressed in courses not less than 20 cms high, bond stones at 2m. apart in each course including cost of materials, labour, HOM, curing complete as per specifications. KBS 5.1.13 IN Cement Mortar 1 : 6								
	(PWD SR 2018-19 Arrived from finished rate of Item 5.01 above))								
	Construction with avilable size stone as stated in item 5.01 above						**50**	**3287.74**	**163222.4**
5.03	Providing flush pointing to square rubble , course or uncoursed stone masonry with cement mortar, 20mm deep, after raking joints to depth of 20mm nicely								
	(PWD SR 2018-19 Pg No256, Item No 34.12.2)								
	For SSM Masonry foundation	Sqm							
	Stone Masonary foundation wall Ist course over PCC for Chainlink fencing		1	300		0.75	225		
	Stone Masonary foundation wall IInd course over PCC for Chainlink fencing		1	300		0.75	225		
	Total						**450.0**	**148.40**	**66780**

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Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Meaurements					Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H	Quantity		
1	2	3	4	5	6	7	8	9	10
5.04	KSRB 5-14: Providing and constructing load bearing wall with solid concrete blocks having block density not less than 1800kg/m3 having a minimum average compressive strength of 4.00 N/mm2 confirming to IS 2185 (Part 1):2005 and constructed with CM 1:4, as per IS 2572:2005 including cost of ail materials labour charges, scaffolding, curing, hire charges of machineries etc., complete as per specifications. KBS No.5.4 with solid concrete blocks of size 400x150x200mm								
	PWD SR 2018-19 Pg No 27 Item NO 5.26.2								
	construction of Solid cemnt concrete Block at the edge of PROW to restrict the encroachment	Cum							
	Vide Typ CS-for 18M wide Road- starts from ch 920m near Divya JSR Limited Appartment to Gangamma Gudi Police station ch:1230m for a length of 310 m in Abbigere main road way to Singapura Garden road		2	310	0.2	1.5	186		
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout		1	655	0.2	1.5	196.5		
	Total						**382.5**	**979.44**	**374635.8**
5.05	KSRB - 15-3.9: Providing 20mm thick cement plaster in single coat with cement mortor ,1:4 to stone masonry& convrete surface including rounding off corners wherver required smooth rendering,: Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. in cement mortar 1:3								
	PWD SR 2018-19 Pg No 116 Item NO 15.19								
	Plastring for Solid Block								
	Vide Typ CS-for 18M wide Road- starts from ch 920m near Divya JSR Limited Appartment to Gangamma Gudi Police station ch:1230m for a length of 310 m in Abbigere main road way to Singapura Garden road	Sqm	2	310		1.5	930		
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout		1	655		1.5	982.5		
	Total						**1912.5**	**287.26**	**549384.75**

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Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Meaurements					Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H	Quantity		
1	2	3	4	5	6	7	8	9	10
5.06	KSRB 2.3: Filling available Excavated Earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20cms in depth, compacting each deposited layer by raming after watering with lead upto 50m and lift upto 1.50m including cost of all labour complete as per specifcations.Specification No.KBS 2.9								
	PWD SR 2018-19 Pg No 7 Item NO 2.10								
	Excavation quantity for SSM wall to chainlink fencing is 100 cum SSM for compound wall is 75 Cum, Difference = 180-135=45Cum	Cum					45		
	Filling avilable earth to Utility duct after Solid Cement Concrete wall is constructed								
	Vide Typ CS-for 18M wide Road- starts from ch 920m near Divya JSR Limited Appartment to Gangamma Gudi Police station ch:1230m for a length of 310 m in Abbigere main road way to Singapura Garden road		2	310	0.8	1.3	644.8		
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout		1	655	0.8	1.3	681.2		
	Total						1371	213.06	292105.26

ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ರಸ್ತೆ ಮೂಲಭೂತ ಸೌಕರ್ಯಗಳು, ದಾಸರಹಳ್ಳಿ ವಿಭಾ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಬೆಂಗಳೂರು-62

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Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Meaurements					Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H	Quantity		
1	2	3	4	5	6	7	8	9	10
5.07	KSRRB M800-29.1. Providing and laying of a reinforced cement concrete pipe duct, 300 mm dia, across the road (new construction), extending from drain to drain in cuts and toe of slope to toe of slope in fills, constructing head walls at both ends, providing a minimum fill of granular material over top and sides of RCC pipe as per IRC:98-1997, bedded on a 0.3 m thick layer of granular material free of rock pieces, outer to outer distance of pipe at least half dia of pipe subject to minimum450 mm in case of double and triple row ducts, joints to be made leak proof, invert level of duct to be above higher than ground level to prevent entry of water and dirt, all as per IRC: 98 - 1997 and approved drawings complete as per specifications. Case - 1: Single row for one utility service								
	PWD SR 2018-19 Pg No 186 Item NO 24.34								
	For getting connection from respective ducts laied on other side of Utility duct by crossing the road without cutting at Inspection chembers at every 60m c/c	m							
	Vide Typ CS-for 18M wide Road- starts from ch 920m near Divya JSR Limited Appartment to Gangamma Gudi Police station ch:1230m for a length of 310 m in Abbigere main road way to Singapura Garden road		5	18			93		
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout		11	12			131		
	Total						224	1830.62	410059
5.08	KSRRB 300-58. Compaction of original ground by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications. MORTH I Chapter 3								
	PWD SR 2018-19 Pg No 147 Item NO 19.64								
	Foot path over service duct	**Sqm**							
	Vide Typ CS-for 18M wide Road- starts from ch 850m at wimac junction to Gangamma Gudi Police station ch:1230m for a length of 380 m in Abbigere main road way to Singapura Garden road		380 m length Scop				0		
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout		1	655	2		1310		
	on Existing Carriageway after scarifying Bituminous surface								
	Vide Typ CS-for 18M wide Road- starts from ch 920m near Divya JSR Limited Appartment to Gangamma Gudi Police station ch:1230m for a length of 310 m in Abbigere main road way to Singapura Garden road		1	310	6.5		2015		
	Total						3325	6.36	21147

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Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Meaurements					Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H	Quantity		
1	2	3	4	5	6	7	8	9	10
5.09	KSRRB M400-21. Construction of footpath/separator by providing a 150 mm compacted granular sub-base as per Clause 401 & 25mm thick cement concrete grade M-15, overlaid with precast concrete tiles in cement mortar 1:3 including provision of all drainage arrangementsbut excluding kerb channel complete as per specifications.MORTH Specification No. 409								
	PWD SR 2018-19 Pg No 155 Item NO 20.21								
	Vide Typ CS-01 18M wide Road- ch 70 m starts near Divya JSR Limited Appartment to Gangamma Gudi Police station for a length of 310 m in Abbigere roab way to Singapura Garden road		380 m lengt h				0		
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout	Sqm	1	655	2		1310	LHS	
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout		1	655	0.7		458.5	RHS	
	Total						1769	730.34	1291606

N.D Varutes

ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ರಸ್ತೆ ಮೂಲಭೂತ ಸೌಕರ್ಯಗಳು, ದಾಸರಹಳ್ಳಿ ವಿಭಾ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಬೆಂಗಳೂರು-02.

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Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Meaurements					Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H	Quantity		
1	2	3	4	5	6	7	8	9	10
5.10	Providing and fixing pre cast solid cement concrete kerb stones made out of C.C. 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting, including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc., completeas per the directions of engineer in-charge								
	PWD SR 2018-19 Pg No 27 Item NO 5.30								
	Kerb stones fixing	**Nos**							
	Vide Typ CS-for 18M wide Road- starts from ch 920m near Divya JSR Limited Appartment to Gangamma Gudi Police station ch:1230m for a length of 310 m in Abbigere main road way to Singapura Garden road		2756				2756		
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout		5822				5822		
	for cross roads		22				22		
	at junctions		89				89		
	Total						**8689**	**432.48**	**3757770.7**
5.11	KSRRB M300-18. Wrought iron and mild steel welded work (using angles, square bars, tees and channel grills, grating frames, gates and tree guards of any size and design etc. including cost of screens arid welding rods or bolts and nuts complete fixed in position but without the cost of excavation and concrete for fixing which will be paid separately complete as per specifications.(Surface grating)								
	PWD SR 2018-19 Pg No 150 Item NO19.97								
	Surface Grating at 10m intervel weight of 21kg/No	Qntl							
	Grating for Drain at 10m intervel								
	Vide Typ CS-for 18M wide Road- starts from ch 920m near Divya JSR Limited Appartment to Gangamma Gudi Police station ch:1230m for a length of 310 m in Abbigere main road way to Singapura Garden road			13			13		
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout			14			14		
	for Cross roads			2			2		
	at Junctions Wimmac+Singapur garden road			2			2		
	Total						31	7618.22	234450.72

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Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Meaurements					Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H	Quantity		
1	2	3	4	5	6	7	8	9	10
5.12	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8								
	PWD SR 2018-19 Pg No 180 Item NO 24.1								
	kerb painting	**Sqm**							
	Vide Typ CS-for 18M wide Road- starts from ch 920m near Divya JSR Limited Appartment to Gangamma Gudi Police station ch:1230m for a length of 310 m in Abbigere main road way to Singapura Garden road		4	310		0.314	389.36		
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout		4	655		0.314	822.68		
	for cross roads		2	5		0.314	3.14		
	at junctions		2	20		0.314	12.56		
	Total						**1227.74**	**84.80**	**104112.35**
5.13	Supplying heavy gauge PVC Conduit Pipe 32mm dia 2.5mmthick with suitable size bends, metal junction boxes adhesive paste etc., by groove cutting in the wall and fixing by bracing U or J hooks and cement plastering up to the wall surface and run with 18 SWG GI fish wire run throughout the conduit wherever necessary. Specification No.KBS 13.2.15.4 /13.9 KSRB13-10.4 : -do- 32 mm dia								
	PWD Electrical SR 2018-19 Pg No 2 Item NO 1.3								
	Electrical cable entry through PVC pipe inside the foundation for street light as per drawing slope length 0.6 m at all RCC column foundations	**m**	Includ ed in the						
	PVC Pipe for Street light poles foundation								
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout		0	1			0		
	Total						**0**	**81.00**	**0.00**
5.14	Providing chain link fencing 50mm size o f 8 guage properly stretched between existing rectangular poles and fixed with suitable bolts & nuts, the free ends shall be welded to the pole and block pipe at top and bottom as required including cost of all materials, labour, lead and lifts and as per the directions of the Engineer-in-charge of w ork including two coats of approved quality paint over one coat o f shop paint, including cost of materials, labour,HOM com plete as per specifications.								
	PWD SR 2018-19 Pg No 266 Item NO 37.3								
	Chainlink fencing for Graveyard In 30m Typ CS - 01 on RHS	**Sqm**							
	Chain link fixing for Govt School		1	300		1.75	525		
	Total						**525**	**757.90**	**397897.5**

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Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Meaurements					Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H	Quantity		
1	2	3	4	5	6	7	8	9	10
5.15	Construction of PRE-CAST RCC MANHOLE CHAMBERS of 1:1.5:3 proportion with ordinary port land cement, 20 mm and down size graded jelly, well graded sand, steel of approved quality and size, constructed using form vibrators of standard type. The top cover to be 200 mm thick concrete slab, wall thickness, raft thickness, offset in raft alround the chamber etc. as per the approved drawing. Benching concrete with 1:6 slope towards the central drain, finished smooth,fixing and grouting pipes. Supply and fixing SFRC manhole cover and frame (heavy duty) conforming to IS:12592 with latest amendments,on CC 1:2:4 bed. including necessary conveyance. Supply and fixingfootsteps (as per IS 10910) with 12 mm dia. steel bar (Fe-415),encapsuled in 3 mm thick plastic, fixed with CC block to the walls staggered at 300 mm etc. as detailed in Technical Specifications. Thewhole works includes sand bedding wherever necessary, disposal ofsurplus earth, barricading, danger lighting, sight rails, boning rods,shoring, strutting, watering, curing, engraving manhole number with flow direction on the inner cylindrical surface etc. The cost toinclude the cost of reinforcement steel, its fabrication charges, costand conveyances of all materials, labour, all leads and lifts. The Precast RCC manholes are for various diameters and depths as stated below and as per detailed drawings, specifications and direction ofthe Engineer.Constructing Pre-cast RCC Manholes 1.5 m internal dia., 2.0 M depth & SFRC cover & frame								
	(BWSSB SR 2017-18 Pg No 171,Sl N O 106.1)								
	Manhole for the following road in service duct for	Nos							
	Constructing Pre-cast RCC Manholes 1.2 m internal dia., 1.0 M depth & SFRC cover & frame								
	Vide Typ CS-for 18M wide Road- starts from ch 920m near Divya JSR Limited Appartment to Gangamma Gudi Police station ch:1230m for a length of 310 m in Abbigere main road way to Singapura Garden road			Quantity is included in					
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout			5			5	30960.00	154800

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Sl. No	Description of Items as per SoR or as approved In Rate analysis sheet	Unit	Meaurements					Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H	Quantity		
1	2	3	4	5	6	7	8	9	10
5.15a	Constructing Pre-cast RCC Manholes 1.2 m internal dia., 1.3 M depth & SFRC cover & frame								
	(BWSSB SR 2017-18 Pg No 171,Sl N O 106.2)								
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout	Nos	4				4	36364.00	145456
5.15b	Constructing Pre-cast RCC Manholes 1.2 m internal dia., 1.6 M depth & SFRC cover & frame								
	(BWSSB SR 2017-18 Pg No 171,Sl N O 106.3)								
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout	Nos	5				5	41306.00	206530
5.15c	Constructing Pre-cast RCC Manholes 1.2 m internal dia., 1.9M depth & SFRC cover & frame								
	(BWSSB SR 2017-18 Pg No 171,Sl N O 106.4)								
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout	Nos	6				6	46074.00	276444
5.15d	Constructing Pre-cast RCC Manholes 1.2 m internal dia., 2.0M depth & SFRC cover & frame								
	(BWSSB SR 2017-18 Pg No 171,Sl N O 106.5)								
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout	Nos	6				6	47373.00	284238
5.16	Supplying S&S RCC SPUN / VIBRATED CAST PIPES (REINFORCED) pipes NP-3 Class conforming to IS:458-1988 with latest amendments using ordinary portland cement, for sanitary works and conveying to work site, rolling and lowering into trenches, laying true to line and level including loading and unloading at both destinations and jointing of pipes and specials including cost of specials, perfect linking of joints with jack to correct position including cost of jointing materials, i.e, rubber rings conforming to IS: 5382 for S&S RCC pipes, with all leads and lifts as directed and giving necessary hydraulic test as per ISS to the required pressure and commissioning etc. complete. (Contractor will make his own arrangements for procuring water for testing). Before the execution of the work, the contractor shall carry out the survey and will be paid extra for the same as per seperate item.:RCC NP3 Class pipe of 300 mm dia.								
	(BWSSB SR 2017-18 Pg No 158,Sl N O 2)								
	Vide Typ CS-for 18M wide Road- starts from ch 920m near Divya JSR Limited Appartment to Gangamma Gudi Police station ch:1230m for a length of 310 m In Abbigere main road way to Singapura Garden road	Rmt	Quantity Is Included						
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout		1	655			655	1659.00	1086645

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Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Meaurements					Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H	Quantity		
1	2	3	4	5	6	7	8	9	10
5.17	Supplying DOUBLE WALL CORRUGATED (External annul corrugated & smooth internal wall) (DWC) of class SN 8, piping system in accordance with IS 16098 (Part-2) and conveying to worksite, rolling and lowering into trenches, laying true to line and level and perfect linking at joints, testing and commissioning, including loading and unloading at both destinations and cuts of pipes wherever necessary including jointing with all labour, lead & lifts, including encasing the pipes alround to a depth of not less than 15 cms. with soft gravel or selected earth available from the excavation etc. complete and giving necessary hydraulic test to the required pressure as per ISS (contractor will make his own arrangements for procuring water for testing) etc. for:Pipes of SN 8, 150 mm dia for LT Cable								
	(BWSSB SR 2017-18 Pg No 125,Sl N O 6.1)	Includ							
	HDPE Pipe for LT Cable								
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout		0	675			0	287.00	0
								Total for Bill of Quantity - 5	10101572

K.D Venkatesh

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ರಸ್ತೆ ಮೂಲಭೂತ ಸೌಕರ್ಯಗಳು, ದಾಸರಹಳ್ಳಿ ವಿಭಾಗ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಬೆಂಗಳೂರು-02.

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Detailed and Abstract Estimate

Name of the Work : Widening & Comprehensive Development of Singapura Garden Road from Abbigere Road (Precision Components Factory) to Shrinikethan Layout (BDA Layout)

1 The rates adopted in this estimate are as per PW,P&IWTD, schedule of rates of Bengaluru circle for 2018-19 continued for 2020-21, & PW,P&IWD, schedule of rates for Electrical works for 2019-2020, also BWS&SB schedule of rates for 2017-18

2 The Area weightage pertaining to the BBMP limit of 6% for road works and 8% for Bridge items is adopted as per schedule of rates of Bengaluru circle of PW,P&IWTD, and No area weightage is considered rates selected from other SR

3 For New items units rates are arrived by deraiving from suitable SR items by adopting/deducting, material rates as given in the SR. Contractor profit and overhead charges of 10% each is considered while affecting either deduction / additon from main finished SR Items.

4 KTPP 1999 followed while Tendering and procurement of materials

Bill of Quantity - 6 Bituminious work

Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Measurements					Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H	Quantity		
1	2	3	4	5	6	7	8	9	10
6.01	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications. Clause 502 of MORTH V revision								
	(PWD SR 2018-19 Pg No 158 Item NO21.6)								
	Primer coat on WMM	Sqm							
	Vide Typ CS-for 18M wide Road- starts from ch 920m near Divya JSR Limited Appartment to Gangamma Gudi Police station ch:1230m for a length of 310 m in Abbigere main road way to Singapura Garden road		1	310	12.6		3906		
	Deduct for existing carriage way retained in 18m c/s		-1	310	6.5		-2015		
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout		1	655	8		5240		
	for cross road		4	10	8		320		
	at junctions		2	25	25		1250		
	Total						8701	29.68	258245.68
6.02	KSRRB 500-9. Providing and applying tack coat using 80/100 grade bitumen(VGIO) on granular base such as WBM surfaces hot bitumen primed at 4 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications. Clause 503 of MORTH V revision								
	(PWD SR 2018-19 Pg No 158 Item NO21.9)								
	Tack coat over Primed surface of WMM	Sqm							
	Vide Typ CS-for 18M wide Road- starts from ch 920m near Divya JSR Limited Appartment to Gangamma Gudi Police station ch:1230m for a length of 310 m in Abbigere main road way to		1	310	12.6		3906		
	Tackcoat on existing bituminus surface is not deducted since DBM & BC will be layed over scarifyed surface		0	310	6.5		0		
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout		1	655	8		5240		
	for cross road		4	10	8		320		
	at junctions		2	25	25		1250		
	Total						10716	10.60	113589.60

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Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Measurements					Rate (In Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H	Quantity		
1	2	3	4	5	6	7	8	9	10
6.03	KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading; premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and ialignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 505 of MORTH V revision using 40/60 TPH capacity H.M.P. with - Mechanical paver Gr-II (50 mm to 75 mm) with 4.6 % VG-30 Bitumen								
	(PWD SR 2018-19 Pg No 160 Item NO21.17.4)								
	Area is same as Prime coat area on WMM and Tack coat on primed surface ie Item No 6.2	Cum	1	10716		0.05	535.8	6407.70	3433245.66
6.04	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications.Clause 503 of MORTH V revision								
	(PWD SR 2018-19 Pg No 159 Item NO21.10)								
	Tack coat on DBM surface for laying BC (if the BC is not laid within 24hrs after DBM is laid due to valid reasons, and if laid after 24hrs tack coat will be measured and paid)	Sqm							
	Area is same as Tack coat area on WMM and Tack coat on block top surface ie Item No 6.02		1	10716			10716	12.72	136307.52
6.05	Providing and laying bituminous concrete 40mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP-53-2015 using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4 % of modified bituminous binder consisting of 4.97% of VG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic)								
	(PWD SR 2018-19 Pg No 162 Item NO21.22.4)								
	Area for BC is same as area of DBM	Cum	1	10716		0.03	321.48	7537.66	2423206.94
								Total for Bill of Quantity - 6	6364595.40

N.D Venkatesh

ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಮೂಲಭೂತ ಸೌಕರ್ಯಗಳು, ದಾಸರಹಳ್ಳಿ ವಿಭಾಗ
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ಬೆಂಗಳೂರು-02.

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Detailed and Abstract Estimate

Name of the Work : Widening & Comprehensive Development of Singapura Garden Road from Abbigere Road (Precision Components Factory) to Shrinikethan Layout (BDA Layout)

1 The rates adopted in this estimate are as per PW,P&IWTD, schedule of rates of Bengaluru circle for 2018-19 continued for 2020-21, & PW,P&IWD, schedule of rates for Electrical works for 2019-2020, also BWS&SB schedule of rates for 2017-18

2 The Area weightage pertaining to the BBMP limit of 6% for road works and 8% for Bridge items is adopted as per schedule of rates of Bengaluru circle of PW,P&IWTD, and No area weightage is considered rates selected from other SR

3 For New items units rates are arrived by deralving from suitable SR items by adopting/deducting, material rates as given in the SR. Contractor profit and overhead charges of 10% each is considered while affecting either deduction / additon from main finished SR Items.

4 KTPP 1999 followed while Tendering and procurement of materials

Bill of Quantity - 7 Road marking and Apparatus

Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Meaurements					Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H	Quantity		
1	2	3	4	5	6	7	8	9	10
7.01	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: roviding and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803								
	(PWD SR 2018-19 Pg No 182 Item NO 24.15)								
	Edge lane Marking	Sqm							
	Vide Typ CS-for 18M wide Road- starts from ch 920m near Divya JSR Limited Appartment to Gangamma Gudi Police station ch:1230m for a length of 310 m in Abbigere main road way to Singapura Garden road		3	310	0.15		139.5		
	Vide Typ CS for12M wide Road for Singapura Garden Road- form ch 0 to ch:655 near Srinikethan BDA Layout		2	655	0.15		196.5		
	Center lane lanee Marking								
	Typ CS-for 12M Road- form ch 0-655 two lane (3m solid lane Gap 4.5m, 456m length for 3m)		2	308	0.1		61.56		
	Typ CS-for 18M Road- form ch 920-1230 (1.5m solid lane Gap 3.5m, 350m length for 1.5m)		2	140	0.1		28		
	Stop line at 4 locations(Double lane)		6	7.5	0.2		9		
	warning lane at location		12	0.6	0.1		0.72		
	Divider lane at2 minor junctions		2	30	0.2		12		
	Bus lane marking at two locations for straight line		4	20	0.25		20		
	Taper lane for bus stop		8	1	0.25		2		
	Pedestrian Crossing at Major junctions-		52	1	0.5		26		
	Painting Letters and Arrow marks on Road surface								
	BUS LANE = 7 letters marking at 2 locations		14	1	0.31		4.382		
	Directional Arrows		5	3.5	0.5		8.75		
	Stop Letters at 4 minor junctions		16	1	0.31		5.008		
	Total						513.42	454.74	233472.61

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Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Measurements					Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H	Quantity		
1	2	3	4	5	6	7	8	9	10
7.03	KSRRB M800-35 **Road markers/Studs** Supply and Installtion of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS(Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to Specifications of Category A of MORTH Circular No RW/ NH/33023/10-97 - DO III Dt 11.06.1997. The height, width and length shall not exceed 50 mm, 100 mm and 102 mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 degree. The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19 mm and height not less than 30 mm) from the body is to be a minimum value of 500 Kg. Fixing will be by drilling holes on the road for the shanks to go inside, without nails and using epoxy resin based adhesive as per manufacturer's recommendation and complete as directed by the engineer.								
	(PWD SR 2018-19 Pg No 187 Item NO 24.41)								
	Studs at every 5mt intervel	**Nos**							
	Typ CS-01 18M Road- form ch0+75 from Divya JSR Appartment to Gangammagudi Abbigere roab ch 380m way to and part of Singapura Garden road		3	80			240		
	Typ CS-04 30M Road- form ch 0-630		2	131			262		
	Total						**502**	**357.22**	**179324.44**
7.04	**Retro-Reflectorised Traffic Signs:** Providing and fixing of retro - reflectorised cautionary, mandatory and informatory sign as per IRC:67 made of high intensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed oundation with M 15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing.- **600mm Equilateral triangle- TYPE XI**								
	(PWD SR 2018-19 Pg No 180 Item NO 24.2.2)								
7.04a	600mm Equilateral triangle- TYPE XI		4				4	2642.58	10570.32
7.04b	- do-900mm equilateral -	**Nos**	4				4	3661.24	14644.96
	(PWD SR 2018-19 Pg No 180 Item NO 24.2.1)								
7.04c	- do-STOP - 900 mm Octogonal type	**Nos**	4				4	5349.82	21399.28
	(PWD SR 2018-19 Pg No 180 Item NO 24.2.6)								

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Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Meaurements					Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H	Quantity		
1	2	3	4	5	6	7	8	9	10
7.05	**Direction and Place Identification Signs upto 0.9 sqm Size Board:** Providing and erecting direction and place identification retro-reflectorised sign as per IRC:67 made of high intensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing								
	(PWD SR 2018-19 Pg No 180 Item NO 24.3)								
	Place name board for 18m road	Sqm	2	0.9		0.9	1.62		
	Place name board for 12mcross road		1	0.9		0.9	0.81		
	Total						2.43	7274.78	17677.715
								Total for Bill of Quantity - 7	477089.33

N.D Venkatesh

ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ರಸ್ತೆ ಮೂಲಭೂತ ಸೌಕರ್ಯಗಳು, ಬಾಸರಹಳ್ಳಿ ವಿಭಾ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಬೆಂಗಳೂರು-02.

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Detailed and Abstract Estimate

Name of the Work : Widening & Comprehensive Development of Singapura Garden Road from Abbigere Road (Precision Components Factory) to Shrinikethan Layout (BDA Layout)

1 The rates adopted in this estimate are as per PW,P&IWTD, schedule of rates of Bengaluru circle for 2018-19 continued for 2020-21, & PW,P&IWD, schedule of rates for Electrical works for 2019-2020, also BWS&SB schedule of rates for 2017-18

2 The Area weightage pertaining to the BBMP limit of 6% for road works and 8% for Bridge items is adopted as per schedule of rates of Bengaluru circle of PW,P&IWTD, and No area weightage is considered rates selected from other SR

3 For New items units rates are arrived by deraiving from suitable SR items by adopting/deducting, material rates as given in the SR. Contractor profit and overhead charges of 10% each is considered while affecting either deduction / additon from main finished SR Items.

4 KTPP 1999 followed while Tendering and procurement of materials

Bill of Quantity - 8 Construction of Recharge pits for Rain water Harvesting

Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Meaurements					Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H	Quantity		
1	2	3	4	5	6	7	8	9	10
8.01	Earth work in excavation for foundation of structures like culverts , retaining walls etc., as per drawing and technical specification, including setting out, construction of shoring and bracing, dressing of sides and bottom, back filling with approved material, disposal of balance earth as per specifications, including cost of labour, HOM etc, complete. in all kinds of soil by manual means								
	(PWD SR 2018-19 P.No 256 Item No34.15.1,								
	Earth work for recharge pit below drain as per drawing	Cum	3	1.5	1.5	3	20.25		
	for incerting 100mm dia pipe below the pit as per drawing = $A=\pi d^2/4$		3	0.008		1	0.02		
	Total						20.27	190.80	3868.193
8.02	KSRRB M2900-1. Plain cement concrete M10 mix with crushed stone aggregate 40mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing including cost of materials,labour, HOM complete as per specifications.MORTH Specification No. 408								
	PWD SR 2018-19 P.No 254 Item No 34.1	Cum							
	PCC for - Long wall		3	3	0.3	0.1	0.27		
	PCC for -Short wall		3	3	0.3	0.1	0.27		
	Total						0.54	4567.01	2466.185
8.03	KSRB 5-14: Providing and constructing load bearing wall with solid concrete blocks having block density not less than 1800kg/m3 having a minimum average compressive strength of 5.00 N/mm2 confirming to IS 2185 (Part 1):2005 and constructed with CM 1:4, as per IS 2572:2005 including cost of ail materials labour charges, scaffolding, curing, hire charges of machineries etc., complete as per specifications. KBS No.5.4 with solid concrete blocks of size 400x200x200mm								
	PWD SR 2018-19 P.No 27 Item No 5.27.1								
	Concrete Block wall - Long wall	Cum	3	3	0.2	3	27.00		
	Concrete Block wall - Short wall		3	3	0.2	3	27.00		
	Total						54.00	966.72	52202.880

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8.01	Earth work in excavation for foundation of structures like culverts , retaining walls etc., as per drawing and technical specification, including setting out, construction of shoring and bracing, dressing of sides and bottom, back filling with approved material, disposal of balance earth as per specifications, including cost of labour, HOM etc, complete. in all kinds of soil by manual means									
8.04	Providing rulled pointing to coursed stone masonry with cement mortar, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour,HOM curing complete as per specifications In cement mortar 1:4									
	PWD SR 2018-19 P.No 116 Item No 15.18									
	Concrete Block wall - Long wall	Sqm	3	6		3	54.00		
	Concrete Block wall - Short wall		3	6		3	54.00		
	Total						108.00	148.40	16027.200
8.05	Providing and fixing unplasticised PVC Pipes of 315mm outer dia with working pressure 10kg/sq cm with perporations wrapped with Geotextiles filter fabrics ,pipe fittings,clips,marking good the floor, including cost of all materials,labour charges,HOM and testing complete as per specifications									
	Derived from PWD SR 2018-19 P.No 77 Item No 11.56 and material rates for Fabric									
	PVC Pipe for filter the rain water	Sqm	1	1		3	3.00		
	Total						3.00	5009.93	15029.799

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8.01	Earth work in excavation for foundation of structures like culverts , retaining walls etc., as per drawing and technical specification, including setting out, construction of shoring and bracing, dressing of sides and bottom, back filling with approved material, disposal of balance earth as per specifications, including cost of labour, HOM etc, complete. in all kinds of soil by manual means								
8.06	providing and filling the recharge pit trenches with stone with sizes of 20 & 40 mm and filler aggregates and Lime stone dust of size 0.075 mm as a top layear over Gravel , packed with stone spalls , 20mm size laid over a layer of 40mm stone aggregate and specific gravity not less than 2.65, . satisfying the requirements laid down in clause 2504.2.2. of MORTH and approved design complete as per specifications MORTH Specification No 704								
	(PWD SR 2017-18 P NO 229 Item No 28.13)								
	Filling of 40mm size aggregate	Cum	3	1.5	1.5	1.5	10.125		
	Filling of 40mm size aggregate below pit for Pipe		3	0.1	0.1	1	0.03		
	Filling of 20mm size aggregate		3	1.5	1.5	0.6	4.05		
	Filling of20mm size aggregate below pit for Pipe		3	0.1	0.1	1	0.03		
	Filling of Filler aggregate		3	1.5	1.5	0.3	2.025		
	Filling the recharge pit trenches with Gravel with sizes of 2.36 mm as a middle layear over 20 mm stone aggregate		3	1.5	1.5	0.6	4.05		
	Filling of20mm size aggregate below pit for Pipe		3	0.1	0.1	1	0.03		
	Total						20.34	2216.46	45082.796
8.08	Providing and laying 100mm thick pre-cast cover slabs over drains of width not exceeding 800 mm using M20 concrete reinforced with steel @ 6.00 kg/Sqm, slabs jointed in CM 1:3 proportion and nicely finished including providing holes in the Cover slabs wherever necessary for easy drainage of surface water including of labour, materials, HOM, curing, lead and lift charges etc, Complete as per MORTH specifications No. 1500,1700.								
	PWD SR 2018-19 P.No 272 Item No 37.66								
	Cover slab of length 1.5m over Recharge pit	Sqm	3	3			9	1145.86	10312.740
	Total for Bill of Quantity - 8 Construction of Recharge pit for Rain water Harvesting								144989.795
	Cost per Recharge pit								48329.932

N.D Vanpeter

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ಬೆಂಗಳೂರು-02.

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Detailed and Abstract Estimate

Name of the Work : Widening & Comprehensive Development of Singapura Garden Road from Abbigere Road (Precision Components Factory) to Shrinikethan Layout (BDA Layout)

1 The rates adopted in this estimate are as per PW,P&IWTD, schedule of rates of Bengaluru circle for 2018-19 continued for 2020-21, & PW,P&IWD, schedule of rates for Electrical works for 2019-2020, also BWS&SB schedule of rates for 2017-18

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3 For New items units rates are arrived by deraiving from suitable SR items by adopting/deducting, material rates as given in the SR. Contractor profit and overhead charges of 10% each is considered while affecting either deduction / additon from main finished SR Items.

4 KTPP 1999 followed while Tendering and procurement of materials

Bill of Quantity - 9 Tree plantation

Sl. No	Description of Items as per SoR or as approved in Rate analysis sheet	Unit	Meaurements					Rate (in Rs)	Amount(in Rs) (Col 8x9)
			No	L	B	D/H	Quantity		
1	2	3	4	5	6	7	8	9	10
9.01	KSRRB M300-9. Planting of trees by the road side (Avenue trees) in 0.60 m dia holes, 1 m deep dug in the ground, mixing the soil with decayed farm yard/sludge								
	PWD SR 2018-19 P.No 149 Item No 19.88								
	PWD SR 2017-18 P.No Item No								
	Plantation of trees	Each	410					1113.00	456330.00
9.02	**Tree Transplantation** Trimming of branches with systematic method, prepration of the ball of earth with respect the age and girth at the breast height of the tree by machinery and skilled labours, digging the pits by J.C.B at Transplantating site proportionately with respect to size of ball, transporation of prepared tree by one or two CRANES as the case may be with the help of								
	BBMP Approved rate Rs 19950/No on 2/2018, plus 8% escalation for 2019&20								
	Tree plantation in Singapur Garden road	Each	46				46	19950	917700.00
								Total for Bill of Quantity - 9	1374030.00

N D Venkatesh

Technically Sanctioned For Rs. 5,50,00,000.00
Five Crores Fifty Lakhs only
Under Head 2020-21 Bangalore City Incharge Minister Discretionary Grants P-3075
Registered as No.CE-RI/TS/31/2020-21/Subject to Conditions Enclosed in Memo.
No.CE-RI/TS/ /2020-21 Dt: 12-10-2020

AE/JE TA

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ಬೆಂಗಳೂರು-02.

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